PROGRAM PLANNING COMMITTEE
OF THE
NEW YORK STATE
ENERGY RESEARCH AND DEVELOPMENT AUTHORITY

Minutes of the 71st Meeting
Held on January 11, 2010

Pursuant to a Notice and Agenda dated January 5, 2010, the 71st meeting of the Program Planning Committee ("Committee") of the NEW YORK STATE ENERGY RESEARCH AND DEVELOPMENT AUTHORITY was convened at 10:30 a.m. on Monday, January 11, 2010, at the Authority's Board Room at 17 Columbia Circle, Albany, New York, and by video conference in the Authority's New York City Office, located at 485 Seventh Avenue, 10th floor, New York, New York, and by webcast.

The following members of the Committee were present:

George F. Akel, Jr., Committee Chair
Vincent A. DeIorio, Esq., Authority Chair (ex officio)
Kevin Burke (by video conference in NYC)
Robert B. Catell (by video conference in NYC)
David D. Elliman (by video conference in NYC)
Elizabeth W. Thorndike, Ph. D.

Also in attendance were Francis J. Murray, Jr., President and CEO of NYSERDA; Robert G. Callender, Vice President for Programs; Jeffrey J. Pitkin, Treasurer; Hal Brodie, General Counsel; David A. Munro, Deputy Counsel and Secretary to the Committee; and various other members of the Authority staff.

Chair Akel called the meeting to order, noted the presence of a quorum, and stated that a Notice of the meeting (see Exhibit A) was mailed to Committee members and the press on January 5, 2010. He stated that the meeting was being webcast to give the public access to watch the meeting through the internet from any location. Each of the Committee members introduced themselves.

The first agenda item concerned the approval of the minutes of the 70th meeting of the Committee held on September 14, 2009. Upon motion duly made and seconded, and by unanimous voice vote, the minutes of the 70th meeting of the Committee were approved.

Chair Akel then introduced President Murray, who stated that the Authority has just completed the busiest and most productive year in its 35 year history. President Murray further stated that NYSERDA management and staff expect to raise the bar regarding those accomplishments in the coming year. He summarized the many initiatives and programs in which NYSERDA is a key player. Examples include the State Energy Plan, the Green Jobs-Green New York legislation, the Climate Action Council, the new Energy Policy Institute, and administering federal economic stimulus funds. President Murray observed that the Authority's major initiative in the coming year will be helping to shape the direction and content of the next

iteration of the Systems Benefit Charge program funded by the Public Service Commission- "SBC 4", which will commence in mid-2011-- that will serve the diverse needs of the State's various energy consumers. President Murray advised that funds from SBC 4 will be the lifeblood of the Authority's research and development and other activities, and the Authority's efforts to develop the energy business sector in New York. He closed by thanking the Committee members for their continued support of NYSERDA's mission through their respective roles on the Committee.

Chair Akel then introduced Vice President for Programs Bob Callender, who briefed the Committee members on the process for developing this year's 2010-2013 Strategic Program Plan (Plan). Mr. Callender also touched on a few of NYSERDA's significant program accomplishments over the past six months.

Mr. Callender advised that he and Authority staff are seeking to involve Committee members earlier than in previous years in NYSERDA's process of developing the goals, principles, strategies, and programs that staff will work to implement under the new Plan. Mr. Callender thanked the Committee members for the comments and suggestions they have already provided to support the development of this year's Plan.

Mr. Callender advised that during today's meeting, the Program Directors will provide the PPC Members with an aerial snapshot of some of the current conditions NYSERDA staff are seeing as they manage the Authority's Deployment and Research & Development Programs; Program Directors will then discuss what they see on the horizon for NYSERDA's various programs. Mr. Callender stated that he and staff look forward to hearing Committee members' comments and advice on the future direction of NYSERDA's programs, as well as new initiatives and roles under the Plan.

Mr. Callender further stated that he and Authority staff look forward to providing Committee members with program evaluation and metrics data at the April PPC meeting, which staff believe will set the stage for discussing and mapping future strategies, initiatives, and programs at the June PPC strategic planning meeting.

Mr. Callender stated that Authority staff continue to provide technical assistance and financial incentives to New York State businesses and residents to support the continued research, development, demonstration and delivery of energy efficient, clean energy and next generation energy technologies. Over the last six months, NYSERDA provided over $40 million to businesses across the State to support a variety of energy efficiency, innovative manufacturing and industrial processing projects. Those businesses include IBM, Corning, GE, Kodak, GlobalFoundries, Xerox and New York Presbyterian Hospital. NYSERDA's support has helped all of these businesses reduce their energy consumption and improve their financial bottom line.

Mr. Callender reported that the Authority has made outstanding progress on contracting the $75 million in federal economic stimulus funds that were awarded to NYSERDA in July 2009 to fund "shovel ready" energy efficiency projects in the hospital, colleges and universities, municipal buildings and not for profit sectors. Demand for energy efficiency projects in these sectors is very strong- over the last four months, NYSERDA received 730 project applications, requesting $221 million. Mr. Callender stated that Energy Efficiency Services Program Director

Tom Barone and his staff, working with legal and contracts staff, have done a great job of contracting these projects.

Mr. Callender advised that the Authority also continues to support clean energy job growth across the State by providing financial incentives and the appropriate clean energy policy initiatives to attract Photovoltaic (PV) manufacturers like Prism and SpectraWatt to locate and create new jobs in New York State. Staff are also working hard to create a faster path from the laboratory to the marketplace for energy technologies by providing financial support to a number of clean energy university-based incubators strategically positioned across the State.

Mr. Callender stated that NYSERDA has also focused on workforce training efforts, helping to establish 36 clean energy training facilities located around the State. Over the last six months, over 2,000 people have received energy efficiency, clean energy and building science training at these facilities. Mr. Callender praised the work being done by Residential Efficiency and Affordability Program Director Karen Villeneuve and her team in managing this effort.

Mr. Callender reported that Hudson Valley Community College's TEC-SMART facility at the Saratoga Technology + Energy Park (STEP) is opening for classes on January 25th, 2010 and there are approximately 200 students registered for the clean energy and building sciences classes that are being offered at TEC SMART. He advised that NYSERDA will be holding the June PPC meeting at the TEC SMART facility, to which all board members have been invited; they will also be given a tour of the GlobalFoundries chip fab site.

Mr. Callender stated that over the last 6 months the Authority issued 25 competitive solicitations, awarded over 2,000 contracts for a total dollar amount of $250 million, and paid approximately 20,000 invoices. Additionally, a new NYSERDA web site is being developed.

In closing, Mr. Callender stated that from energy efficiency improvements and innovations in manufacturing to workforce training and energy-based job growth, NYSERDA staff look forward to working closely with the PPC Members over the next few months on the development of the priorities and programs for this year's Strategic Program Plan. He again thanked the Members for their continued assistance and commitment to NYSERDA's Strategic Planning Process.

Program Director Reports

Next on the agenda were Program presentations by various Program Directors. The presentations provided a snapshot of current conditions within each program, as well as what each Director sees on the horizon for their respective program areas.

Energy Analysis Director John Williams outlined the components of the upcoming NYSERDA Strategic Program Plan. He first noted that the Authority's four corporate goals- efficient use of energy, promotion of diverse renewable energy sources, a clean energy economy, and a clean environment- correlate directly with the 5 key strategies detailed in the State Energy Plan that was finalized in December 2009. Mr. Williams stated that NYSERDA is well positioned to integrate the State Energy Plan policies into NYSERDA's program delivery and strategic planning processes. Mr. Williams then advised that the major elements of the 2010 Strategic Program Plan will include discussion of the following topics:

- NYSERDA's Mission, Goals, and Core Competencies
- Understanding the Energy/Economic/Environment Landscape
- Clean Energy Continuum
- Gaps and Opportunities
- Barriers and Threats
- Market Entry and Exit Strategies
- Program Evolution
- Training and Workforce Development
- Vision for Longer Term (Beyond 3 Years).

Residential Efficiency and Affordability Program (REAP) Director Karen Villeneuve reported that this is an exciting time to be in the energy business. There is a new priority on residential energy efficiency in particular – at the local, State and national levels – that is both validating and giving new life to the programs NYSERDA has developed and been nurturing for years. At the State level, the policies supporting this increased emphasis on residential programs include the 45 x 15 and 80 x 50 goals established by the Governor, as well as the emphasis on the role of the green economy in New York's overall economic recovery. Even more importantly is the recognition by Governor Paterson that the residential sector can and must be a major contributor to a sustainable future. Ms. Villeneuve emphasized that it is critical to the success of this initiative that residents understand the issues that face the State and actively participate in resolving those issues. To that end, the Governor's office has established a weekly meeting of the State agencies providing energy programs and services to the residential sector, and is working to improve overall coordination and effectiveness of those programs and services.

Ms. Villeneuve stated that there is a large mix of State sponsored initiatives, each with their own specific goals, directed by multiple parties and delivered by multiple program administrators. These include the Systems Benefits Charge (SBC), Energy Efficiency Portfolio Standard (EEPS), Regional Greenhouse Gas Initiative (RGGI), Green Residential Buildings Program, Green Jobs/Green NY, and the Municipal sustainable energy loan program. In addition to developing and administering the programs funded through these initiatives, the Authority has some broad, overarching roles. NYSERDA needs to:

- work with utilities and others to limit customer confusion related to the multiple programs – finding a way to integrate multiple funding sources into single programs where possible, and to promote consistent messages and standards across programs where it is not. NYSERDA and the utilities have formed the Energy Efficiency Program Administrators Collaborative to work on coordination issues;

- encourage homeowner investment, because the aggressive goals we need to meet cannot be achieved with public funds alone. Consumers need to understand the value of investment in their homes and their lifestyles through education – including the education of our future consumers;

- facilitate workforce and business development to make sure the Authority has the capacity to achieve its goals.

- continue to develop or facilitate development of standards – including quality standards for the work being done to ensure those consumers making investments are rewarded.

Moving forward, Ms. Villeneuve stated that there will continue to be opportunities for growth of the energy industry in the residential sector. At the national level, as in New York State, there is a growing role for residential energy efficiency in the green economy. Both the House and Senate drafted energy bills this past year, creating programs designed to aggressively pursue residential energy efficiency, and consensus around the importance of this opportunity is now resulting in special legislation for the national "Home Star" program bill. Ms. Villeneuve stated that this legislation is expected to be addressed during the first part of 2010, and will include incentives for residential energy efficiency addressing all fuels, and development of standards for energy efficiency work as well as quality assurance procedures. Ms. Villeneuve stated that NYSERDA should take pride in the fact that the legislation under development is, at least in part, modeled after the standards and processes developed for New York's Home Performance with ENERGY STAR program.

Ms. Villeneuve stated that another high priority at the national level is residential energy project financing. Consumers must be able to access reasonably-priced financing for longer-term investments in their homes – paying themselves back with energy bill savings and creating jobs for their neighbors. NYSERDA has responded to a federal solicitation that would demonstrate several financing options in conjunction with the Green Jobs/Green NY initiative. Some of these options tie the financing back to the property, meaning the homeowner does not carry the burden of the loan with them if they should sell the home in the meantime. Ultimately, in order to make funds available at attractive interest rates, NYSERDA will need the backing of the government, and will need to work closely with the capital markets.

Ms. Villeneuve reported that during the coming year staff will transition the PV program of the RPS customer-sited tier to the deployment programs – both residential and commercial. This transition, which acknowledges the more widespread availability of products, sizable installer base, and lower prices, is expected to lead to better integration of renewable generation and energy efficiency among both customers and the energy services industry. It will also set up a model for how NYSERDA effectively transitions advanced technologies from the demonstration and market development phase to full-scale deployment.

Ms. Villeneuve concluded by observing that there is a lot happening in the residential sector at a tremendous pace. The core market transformation and low-income programs NYSERDA has established are now serving as an important base for other State and national initiatives. And for each initiative, all of the involved agencies and organizations are striving to make decisions that achieve discrete goals most cost-effectively. However, what is lacking is a framework within which to make those decisions – a comprehensive Residential Roadmap that shows how the various strategies fit together, how the many initiatives complement each other, and how all of the parts contribute to the ultimate goals. Ms. Villeneuve stated that REAP will initiate this roadmapping by inviting agencies and other stakeholders to the table so that a path can be developed for the residential sector consistent with the newly adopted State Energy Plan. This activity should pave the way for upcoming planning and program development for the next phases of EEPS and SBC – as well as future federal initiatives.

Michael Colgrove, Director of the New York City Office, reported on the current status of the Multifamily Performance Program, the Electric Reduction Program, and the "Greater, Greener Building Legislation" recently enacted by New York City, that will, among other things, require multifamily buildings to benchmark their energy usage as well as conduct energy audits. Looking forward, the NYC office will focus on:

(1) the low income multifamily sector- restrictions in EEPS funding severely limit the ability of the Multifamily Performance Program to address the needs of low-income multifamily units;

(2) EPA's Multifamily ENERGY STAR Program- NYSERDA will work with EPA to implement a new pilot program; and

(3) working with the US Green Buildings Council as it explores whether to certify existing building performance.

Janet Joseph, Director of the Clean Energy Research and Market Development program, provided an overview of the current clean energy landscape, and then highlighted the Authority's priorities and future directions. She reported that there is burgeoning consumer demand at a global level for renewable energy products, even in this time of economic recession. At the same time, there is now widespread recognition that new clean energy markets provide significant opportunities for economic growth- at a scale that could precipitate the next industrial revolution.

Ms. Joseph observed that the Governor's State of the State address presented a bold vision for New York's economic future- the Governor views high tech industries and clean tech as NY's pathway to new economic vitality. NYSERDA certainly shares this view, and it is a view that is also being embraced at the national level, as evidenced by the billions of dollars invested into CleanTech businesses as part of the federal government's economic stimulus efforts. New York State has tremendous innovation assets at its universities, industries and research labs:

- NY is among the top three states in the country in clean energy patents;
- according to a recent assessment by the New York Academy of Sciences, NYS has world class technical capabilities in advanced materials, life sciences, and information technology;
- these enabling technologies provide a springboard into several important emerging clean energy markets. It is indeed these clean energy areas where we are beginning to see some technology clusters emerge in New York in energy storage, in PV, in bioenergy, in smart grid, and in advanced building systems.

There has been recent recognition that we have a need for innovation in energy that is unprecedented in our nation's history. A low-carbon future - at the scale that scientists are calling for, i.e., 80% less emission of greenhouse gases relative to today by mid century- will only be realized if we can radically accelerate our pace of technology innovation and market introduction.

Ms. Joseph observed that all of these factors offer tremendous promise for New York State. However, the Clean Energy sector is not immune to the broader economic downturn; staff are seeing some constraints in the financing of new clean energy projects and investment in new

clean energy businesses, but many experts expect that this will improve over the next year or two.

Ms. Joseph offered a quote from the Associate Director of Brookhaven National Lab who spoke at a workshop that NYSERDA organized in January 2010 to kick off the State's Climate Action planning efforts: "Next generation technology will be born: will New York State be buying or selling this technology?" She emphasized that NYSERDA wants to do everything within its power to ensure that New York businesses are selling clean energy technology to the world, and this is the R & D program's most significant priority. Strategically, NYSERDA will be continuing to build the capacity for innovation and technology commercialization in New York. Ms. Joseph offered these examples:

- expanding clean energy incubator efforts into regional technology clusters;
- connecting the many scientists and engineers across the State;
- networking the investment community across New York;
- placing a strong focus on business development as well as technology development. In order for a new technology to make it into the market-place, more than just a good technology is needed; there must be a management team and business strategy that can deliver. NYSERDA has seen many good technical inventions sit idle for lack of a successful business strategy. This year NYSERDA will be launching a pilot program that builds both technology performance and business development gates into the Authority's R&D project funding;
- leveraging large amounts of federal funding.

Ms. Joseph stated that from a technology and a market standpoint, NYSERDA will be focusing and building on those areas where New York has strategic assets and strengths, such as energy storage and smart grid. The Authority will be looking to grow emerging renewable energy markets in NYS - as part of the next phase of the RPS - and as part of NYSERDA's broader efforts to develop indigenous resources in NYS, such as off-shore wind, bioheating, and solar thermal (which suffers from an underdeveloped market in NYS). NYSERDA will also be working to set New York on a path toward a low-carbon future consistent with the carbon reduction goals set forth in the Governor's recent Executive Order directing the State to develop a Climate Action Plan.

In closing, Ms. Joseph stated that we are at a unique point in time, with tremendous opportunity ahead for NYS. She opined that NYSERDA's mission has never been more critical to the State's future than it is today.

Peter Douglas, Director of the Energy Efficiency Research (EER) program, reported on current conditions within his program. First, New York firms face competitive pressure to add more value to existing output, and reduce their operational costs. While energy is often a small component (3-4%) of costs, it is bound up in other more costly process decisions that involve environmental regulation, labor, building footprint and waste management. Research and development is essential to address competition, but many smaller NY firms face barriers to sustain effective R&D programs. These include lack of in-house capabilities and thin profits margins, which can make R&D prohibitively expensive.

Mr. Douglas also explained that the penetration of combined heat and power (CHP) systems is low compared to its potential. Government financial and technical support is still required to increase acceptance. The technology has begun to get serious attention from large commercial and institutional owners that have multiple properties. The time and effort required to get it right at the first site can be recovered by replication. However, this is not the case for most single site owners.

Mr. Douglas reported that EER has also been involved in establishing the NY Smart Grid Consortium, which was organized to coordinate the transmission and distribution research agenda among NYSERDA, utilities and the NY Independent System Operator. The Consortium was very useful in pulling together a set of comprehensive proposals for federal stimulus funding. Many of these proposals had been seeded by NYSERDA-funded projects prior to announcement of the economic stimulus program. These projects emphasized storage, operator visualization, phase angle measurement, and other real-time state of system monitoring technology.

Looking to the future, Mr. Douglas outlined the following priorities. First, helping New York State become more resilient to competition through modernization of manufacturing processes, since we want to minimize the reasons manufacturers might consider relocating outside the State. NYSERDA will emphasize a variety of alternative processes that reduce the carbon and environmental footprint of manufacturing processes. One example is supporting use of ultra-violet/electron beam materials (UV/EB) processing, advance burners, heat recovery/reuse and other alternatives. For example, the UV/EB systems use advanced coatings that do not require heating for drying, or energy to destroy resulting VOC emissions; these systems can also speed up processes, thereby increasing overall productivity. NYSERDA has engaged the UV/EB industry association to host East Coast trade shows, plan an application center to provide assistance to industry, and support demonstration/product development projects.

NYSERDA has also supported road mapping and conferences on bio-mimicry as an approach to improving the design of new products. Mr. Douglas explained that bio-mimicry systematically applies natural solutions in the process of product design. For example, the leading edges of a whale's fins are bumpy to improve its maneuverability in water. This approach can be applied to improve efficiency in wind turbine blades or fan/pump impellors.

Mr. Douglas reported that in the CHP sector, NYSERDA is focusing on approaches to increase acceptance by end-users. NYSERDA is working to (1) standardize systems to reduce the amount of up-front costs associated with site specific planning and engineering, and (2) support innovative business models, such as "lease to own." These allow the customer to gain comfort and experience with the systems, while minimizing operating and maintenance expenses. Staff is also working to demonstrate technology to allow more harmonious inter-connection with the local utility distribution system (fault tolerance and backflow protection).

With regard to buildings, Mr. Douglas explained that the end goal is to promote development and application of technologies that allow new construction to achieve significant load reduction and increase use of on-site and renewable energy resources. New high-performance building envelope systems will help minimize loads as compared to current practice. EER staff is supporting demonstration programs (with REAP) to advance the level of

performance of retrofit assistance in low income single family homes retrofit programs. NYSERDA is also working with New York and European companies to accelerate manufacturing and availability of clean, high efficiency wood burning systems, by providing performance testing and emissions characterization to State and Federal environmental agencies to assist in policy and rulemaking. Additionally, NYSERDA is exploring various options to reduce component costs for solar thermal and PV systems to improve both cost and performance.

Mr. Douglas stated that EER will be working to expand storage technology applications to increase use of intermittent renewable energy and to enable future hybrid electric support infrastructure. NYSERDA will apply battery and other storage solutions emerging from the New York Battery and Energy Storage Technology Consortium. (NY-BEST™ is an industry-focused coalition working to build an advanced battery and energy storage sector in New York State, operates under the guidance of NYSERDA, and is being supported with approximately $25 million in seed funding through the Clean Air Interstate Rule auction proceeds.) The Authority will also continue to support innovative systems like the Beacon flywheel installation and the compressed air storage demonstration in the Iberdrola/NYSEG territory.

Finally, Mr. Douglas reported that NYSERDA will work to promote increased end-use customer interactions and transactions for load balancing. There is much potential for increasing load flexibility, but appliance manufacturers and end-users need assistance in identifying the best way to enable this capability. Reducing the cost of monitoring and controlling small loads dispersed through-out buildings is also an important research and development area. NYSERDA will continue to support a number of projects that seek to demonstrate value propositions and business models. This is needed to help rationalize the substantial smart-grid investments required to support advanced meter investments and the use of real time prices.

Energy Efficiency Services (EES) Director Tom Barone reported that it has been an exceptionally busy year for EES's 55 staff, currently working with an annual budget of approximately $285 million. This includes new EEPS, federal economic stimulus, RGGI, and transportation funding. Just with SBC funding, EES is committing an average of almost $2 million per week. Mr. Barone then discussed what is happening in the marketplace to cause all this activity, how NYSERDA staff are reacting, and what he expects will happen in the next year.

Mr. Barone stated that the confluence of the economic crisis and a climate damaged by greenhouse gases has created a "perfect storm." Energy efficiency is seen by many as one effort that could reduce the impact of both issues. One result is that the Governor has seen fit to establish aggressive energy efficiency and renewable energy targets. The commercial, industrial, and transportation sectors account for over 71% of the net energy consumed in New York (compared to about 55% nationally), as well as 58% of all greenhouse gas emissions. Historically, mid- to large commercial/industrial buildings hold the opportunity for large energy reductions at very low costs, which makes this sector an obvious first priority. Additionally, as a result of the State's economy, schools, hospitals, and local governments have been hurt financially, possibly more than any other sector. These customers are lining up demanding assistance from NYSERDA.

Mr. Barone stated that many industrial customers are now realizing that the energy component of their operations budget is an area over which they have significant control,

particularly the amount of energy consumed in their processes. Process loads, especially in data centers, typically dwarf the energy load of just the building shell. This is why NYSERDA has been moving forward with an aggressive industrial process program. In the commercial real estate market in NYC, building managers have found that making their spaces "green" or energy efficient makes their rental properties more desirable and marketable and they are asking for NYSERDA's help. As a result, NYSERDA staff have already benchmarked over 139 million square feet of the commercial real estate market space in NYC (about 20%).

Mr. Barone reported that New York City has recently enacted legislation to improve energy efficiency in existing buildings, expected to result in a 5% reduction in the city's carbon footprint. EES staff have been working with NYC from the beginning to help formulate the legislation, and look forward to helping NYC implement these new strategies. Additionally, with the growth of the internet and the proliferation of server farms, Mr. Barone suggested that there is an opportunity to concentrate on energy efficiency in data centers, which are extremely energy intensive applications.

Mr. Barone observed that there are currently no efficiency standards for wastewater treatment facilities. As a result, energy issues are rarely considered when these facilities are renovated. EES staff has already begun work with the NYS Environmental Facilities Corporation (EFC) to introduce energy efficiency technologies into wastewater treatment projects currently planned by EFC for 2010.

While NYSERDA has made great progress with increased energy efficiency across the State, Mr. Barone stressed that there is still so much to do. Based on the results from recent ARRA solicitations, it is clear that there is a significant unmet need. With this need also comes the opportunity for creating a large number of new jobs in energy auditing and construction. A huge potential still exists in the transportation and industrial sectors where there is a significant opportunity for carbon reductions, and NYSERDA will be targeting both areas. Additionally, the photovoltaic industry has matured to the point where the PV program, funded by the Customer-sited Tier of RPS, will be moving from R&D to the deployment programs. The current PV program statistics show that more than 60% of the activity is in non-residential buildings. EES staff is working with R&D and REAP staff in the transition of the PV program to REAP and EES.

Mr. Barone stated that another issue that EES staff is watching closely is a shortage of qualified professionals. With the amount of money going to energy programs (in New York and neighboring states), the number of qualified professionals who are capable of providing audits, design and program review is becoming thin. NYSERDA will be increasing its workforce development efforts and begin development of standards for auditors, with both efforts expected to result in job growth.

Mr. Barone observed that it is widely recognized that a more stringent energy code is the lowest cost way to increase energy efficiency. The EEPS proceeding anticipates a significant amount of energy savings from updating of the NYS Energy Code. EES staff is working with Department of State staff to amend the commercial portion of the energy code to comply with the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 90-2007.

Mr. Barone stated that the biggest change to the energy efficiency industry in the last decade is the re-introduction of utilities as program administrators. The Authority is excited about the possibilities this creates, but also concerned about the potential for confusion in the marketplace. Multiple programs within the same utility service territory could lead to confused customers who opt to do nothing. For the long-term success of NYSERDA's programs, the energy programs within a service territory need to be integrated in such a way as to be seamless to the customers.

Mr. Barone described a collaborative effort that EES has initiated with National Grid. A pilot program will develop a combined NYSERDA/Grid energy program targeted to hospitals. The program will be co-branded with a single application form to eliminate customer confusion. Megawatt hour reduction goals for the two organizations will be combined into one, with the collaboration responsible for meeting those targets. Hospitals were chosen for the pilot because of the experience both organizations have in the health care sector, the ability of hospitals to make decisions more quickly than most other institutional customers, the impact that the economy is having in the institutional sector and the unmet need of hospitals as demonstrated in NYSERDA's Recovery Act solicitation. Hospitals are one of National Grid's largest sectors, and Grid hopes that implementing energy efficiency projects will help their customers pay their bills. The collaboration will combine Grid's knowledge of their customer's energy use and their desire to stay close to their customers with NYSERDA's technical and financial assistance, along with the decade of experience NYSERDA has in running these types of programs in NYS. NYSERDA hopes this will become the template for other sectors within National Grid's service territory and for other utilities across the State as well.

The Authority's Proposed Budget for Fiscal Year 2010-11

The Chair then introduced Authority Treasurer Jeff Pitkin, who presented the Authority's proposed Budget for the fiscal year ending March 31, 2011 (FY 2010-11). Mr. Pitkin advised that revenues are budgeted at $671.7 million for FY 2010-11, an increase of $10.4 million (1.6%) from the FY 2009-10 Budget ($661.4 million). The Budget includes expenditures totaling $688.8 million, an increase of $107.7 million (18.5%) over the FY 2009-10 Budget ($581.2 million). The difference between revenues and expenditures in each fiscal year largely reflects timing difference between collections of funds for programs administered and the expenditure of such funds, with the difference being held as restricted funds (restricted net assets). The Budget anticipates a balance of unrestricted net assets of $1.4 million as of March 31, 2011, representing approximately .2% of total funding, an increase of $280,000 from the prior year.

Mr. Pitkin explained that the New York Energy $mart Program, funded through the System Benefits Charge, includes $174.5 million to be transferred to NYSERDA each fiscal year over the five year funding period approved by the Commission, which extends through June 2011. The Budget also includes additional funding expected to be received under various PSC Orders issued under the Energy Efficiency Portfolio Standard (EEPS) proceeding, with a total of $113,184,000 to be received during FY 2010-11. It is anticipated that some additional funding will be provided through further Orders of the PSC in the EEPS proceeding and the Budget may have to be amended accordingly. The RPS program includes $106.3 million to be received from the RPS surcharge under the PSC Order which authorized collections through June 2013. The Commission met recently and approved additional funding for the program, but this additional

funding is not yet reflected in the Budget as it will depend on action by the Commission at an upcoming meeting to provide the specifics for additional revenue collections.

The Budget for the RGGI program assumes that 60.5 million in New York allowances will be sold during the fiscal year, and further assumes an overall average clearing price of $1.86 per allowance, the minimum reserve price established in program regulations. As discussed in the past, it is difficult to predict the amount to be received for the auctioning of future allowances and so this revenue source may be volatile, and the Budget includes a conservative assumption that only the minimum reserve price will be realized.

Mr. Pitkin stated that a RGGI Operating Plan was approved by the Board at the April 2009 meeting detailing programs to be administered using the RGGI auction proceeds. However, litigation commenced by a generator stalled the program's implementation. At a special meeting of the Board in December 2009, the Board approved a proposed settlement of the litigation, which has been released for public comment. This proposed settlement allows the programs to begin. To date (through the December 2009 auction), a total of $180.7 million has been received over five auctions, with the next auction scheduled in March 2010. In October 2009 the Green Jobs-Green New York legislation was enacted, which provides that a total of $112 million of RGGI allowance proceeds be used for this program over a three year period. In December 2009, the Governor signed Deficit Reduction Plan legislation that required $90 million in previously received RGGI allowance proceeds to be transferred to the State General Fund.

Mr. Pitkin reported that NYSERDA has convened an advisory group of stakeholders to advise how to best utilize the remaining RGGI auction proceeds anticipated to be available. Staff has developed revisions to the Operating Plan which will be presented to the Advisory Group for input at a meeting on January 13, 2010. The revisions to the Plan will then be presented to NYSERDA's Board for approval at an upcoming meeting.

The Budget for the Green Jobs–Green New York program includes $61.5 million in funding to be provided to the program for the first year. The Budget anticipates total expenditures of $61,494,000, with program expenditures devoted to workforce development and training, outreach and marketing, energy audits, and program financing (which may include using funds as reserves to attract private capital) which may be offered through a variety of financing approaches including unsecured consumer bank loans, loans issued with repayment provided through utility bills, and loans issued and supported by special property tax liens and with repayment provided through special property tax assessments.

The FY 2010-11 Budget includes salary costs totaling $28.2 million, an increase of $3.6 million from the prior year. The increase is due to an increase of 25.4 full-time equivalent employees, primarily for the new RGGI programs. The Budget includes State cost-of-living adjustments which may be authorized for NYS Management/Confidential employees effective April 1, 2010, and performance-based salary increases and lump sum payments. Although included for Budget purposes, the cost-of-living adjustment and performance-based salary increases and payments will only be paid if the State provides similar payments.

The Budget for fringe benefit costs is $13.5 million, an increase of $2.3 million from the prior year, primarily due to the increase in budgeted staff and also due to an increase in projected

pension contributions based on estimates provided by the New York State Retirement System. The Budget includes $3.7 million for post-employment health insurance benefits accrued under GASB45, which assumes NYSERDA's annual contribution will be lower than prior years due to the establishment of a segregated trust account. GASB45 costs allocable to the SBC-funded programs have added about $1 million to NYSERDA's SBC program administration costs, or about .6% of funding. Although this cost was not in place when the Authority's program administration cost funding limit of 7% was established for SBC III, NYSERDA is using its best efforts to absorb this additional cost without seeking an increase from the Public Service Commission.

NYSERDA pays to the State an annual fee assessed under Public Authorities Law Section 2975 for general governmental services, which is allocated among program activities in proportion to each program's revenues. The FY 2010-11 Budget includes $6,850,000 for this payment based on its last payment in FY 2008-09 (FY 2009-10 has not yet been assessed). Since fiscal year 2004-05, NYSERDA has also been required to make a payment of up to $913,000 annually to the State general fund pursuant to Article VII budget bill language; this payment obligation is expected to continue and is included the FY 2010-11 Budget.

The Budget includes $894,000 for capital assets, including computer equipment replacements and upgrades, furniture and equipment costs associated with anticipated facility consolidation and expansion, vehicle replacements, and improvements and infrastructure costs at STEP.

The Chairman asked if there was any further discussion or questions regarding the proposed budget for FY 2010-11. There being none and based on all the reports and discussions as presented, upon motion duly made and seconded, and by unanimous voice vote, the Committee recommended that the full Board adopt the resolution approving the Authority's proposed budget for FY 2010-11. A copy of said resolution is attached hereto as Exhibit B.

Mr. Akel asked if there was any other business before the Committee. There being none, upon motion duly made and seconded, and by unanimous voice vote of the Members, the 71st meeting of the Program Planning Committee was adjourned.

Respectfully submitted,

David A. Munro

David A. Munro
Secretary to the Program Planning Committee

Exhibit A

NYSERDA New York State Energy Research and Development Authority

Vincent A. DeIorio, Esq., *Chairman*
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NOTICE OF MEETING AND AGENDA

January 5, 2010

TO THE MEMBERS OF THE PROGRAM PLANNING COMMITTEE:

PLEASE TAKE NOTICE that a meeting of the Program Planning Committee (the 71st meeting) of the New York State Energy Research and Development Authority will be held in the Authority's Albany Office at 17 Columbia Circle, Albany, New York, and by video conference in the Authority's New York City Office, located at 485 Seventh Avenue, 10th floor, New York, New York, and by webcast, on Monday, January 11, 2010, commencing at 10:30 a.m., for the following purposes:

1. To consider and act upon the minutes of the 70th meeting of the Program Planning Committee held on September 14, 2009.

2. To receive a report from the President on various initiatives.

3. To receive a report from the Vice President for Programs on the accomplishments for 2009 and NYSERDA's strategic planning process.

4. To receive a report from the Director of the Energy Analysis Program on the State Energy Plan and an overview of NYSERDA's strategic plan.

5. To receive a report from the Director of the Residential Efficiency and Affordability Program on the status of NYSERDA's Residential Efficiency and Affordability Programs.

6. To receive a report from the Director of the New York City Regional Office on the status of NYSERDA's Multifamily Performance Program.

7. To receive separate reports from the Director of the Clean Energy Research & Market Development and the Director of Energy Efficiency Research Program on the status of NYSERDA's R&D programs.

8. To receive a report from the Director of the Energy Efficiency Services Program on the status of the administration of NYSERDA's energy efficiency programs.

9. To receive a report from the Treasurer and to consider and act upon a resolution recommending the approval of the Authority's fiscal year 2010-2011 Budget.

10. To transact such other business as may properly come before the Committee.

Members of the public may attend the meeting at either of the above locations. The meeting is also available through webcast at http://www.nyserda.org/webcast.asp.

David A. Munro

David A. Munro
Secretary to the Program Planning Committee

Exhibit B

Resolution No. _____

RESOLVED, that the proposed fiscal year 2010-11 Budget submitted to the Members for consideration at this meeting, with such non-material, editorial changes and supplementary schedules as the President and Chief Executive Officer, in his discretion, may deem necessary or appropriate, be and it hereby is approved for submission to the persons designated in Sections 1867(4) and 2801 of the Public Authorities Law.